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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,595	01/30/2001	Peter Hossel	51186	8957
26474 7590 01/28/2008 NOVAK DRUCE DELUCA + QUIGG LLP 1300 EYE STREET NW SUITE 1000 WEST TOWER WASHINGTON, DC 20005			EXAMINER LAMM, MARINA	
			ART UNIT 1617	PAPER NUMBER
			MAIL DATE 01/28/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/771,595

Applicant(s)

HOSSEL ET AL.

Examiner

Marina Lamm

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 9-14 and 16-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-14 and 16-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Acknowledgment is made of the amendment filed 9/17/07. Claims pending are 1-4, 9-14 and 16-25. Claims 1-4, 9-14 and 16-19 have been amended. Claims 20-25 have been added. Claim 15 has been cancelled.

### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-4, 9-14 and 16-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dieing et al. (EP 0 893 117, translation) in view of either Dupuis et al. (US 5,553,63) or Eteve et al. (US 5,643,557), all of record.

Dieing et al. teach cationic crosslinked polymers for use in cosmetic compositions, in particular in hair care compositions such as hair lotions, rinses, emulsions, sprays and shampoos, said polymers comprising 1-99.99% of a cationic or quaternized monomer such as 3-methyl-1-vinylimidazolium methyl sulfate and 0-98.99% of a water-soluble monomer such as N-vinylpyrrolidone. See Translation at pp. 4-6. N,N'-divinylethylenurea can be used as a crosslinking agent. See Translation at p. 5; p. 7; Example 3. The polymers of Dieing et al. are obtained by the same method of free-radical initiated solution polymerization as recited in the instant claims. See Translation at p. 5. Dieing et al. teaches that along with the polymers and solvents, the cosmetic hair preparations can also contain conventional cosmetic ingredients. See Translation at p. 6. With respect to Claims 24 and 25, the compositions of Dieing et al. contain 0.01-

5% of the cationic crosslinked polymer, which is within the claimed range. See p.7.

Dieing et al. do not explicitly teach the UV filters of the instant claims. However, Dupuis et al. teach using coated or uncoated metallic oxide pigments (e.g. titanium dioxide, zinc oxide, cerium oxide or zirconium oxide) having an average size of less than 100 nm in haircare cosmetic compositions for the protection of hair keratin against sunlight. See Abstract; col. 1, lines 13-17, 30-65; col. 2. Similarly, Eteve et al. teach using coated or uncoated metallic oxide pigments (e.g. titanium dioxide, zinc oxide, cerium oxide or zirconium oxide) having an average size of less than 100 nm in haircare and skincare compositions for the protection of epidermis or hair against UV rays. See Abstract; col. 1, line 59 – col. 3, line 65. The compositions of both Dupuis et al. and Eteve et al. may contain conventional organic UV sunscreens. See Examples. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hair care compositions of Dieing et al. such that to employ inorganic UV filters of either Dupuis et al. or Eteve et al. One having ordinary skill in the art would have been motivated to do this to obtain compositions that would protect hair and skin from UV radiation as suggested by either Dupuis et al. or Eteve et al. With respect to Claim 17, as amended, and new Claim 20, when the compositions of Dieing et al. in view of either Dupuis et al. or Eteve et al. are applied to hair, they are applied to the skin (scalp).

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

***Response to Arguments***

3. Applicant's arguments filed 9/17/07 have been fully considered but they are not persuasive.

In response to the Applicant's argument that the cited prior art pertains to hair care compositions whereas the Applicant's claims "are drawn to preparations for protecting human skin against solar rays", it is noted the recitation of intended use, i.e. "for protecting human skin" in the composition claims is not given any patentable weight. The courts have held that in composition claims "intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim." See *In re Casey*, 152 USPQ 235 (CCPA 1967); *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Further, it is noted that the compositions of Dieing et al. are applied to hair as hair lotions, hair rinses, hair emulsions, conditioners, gels, etc., and therefore, are applied to scalp (i.e. skin). Furthermore, it is noted that Eteve et al. teach using coated or uncoated metallic oxide pigments in haircare and skincare compositions for the protection of epidermis or hair against UV rays as discusses above.

In response to the Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Dieing et al. teach cosmetic compositions, in particular, hair care compositions containing the cationic crosslinked polymers of the instant claims. Dieing et al. teaches that along with the polymers and solvents, the cosmetic hair preparations can also contain conventional cosmetic ingredients, but fails to teach the metal oxides. However, both Dupuis et al. and Eteve et al. teach using coated or uncoated metallic oxide pigments in haircare cosmetic compositions for the protection of hair keratin against sunlight as discussed above. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hair care compositions of Dieing et al. such that to employ inorganic UV filters of either Dupuis et al. or Eteve et al. One having ordinary skill in the art would have been motivated to do this to obtain compositions that would protect hair and skin from UV radiation as suggested by either Dupuis et al. or Eteve et al. The strongest rationale for combining references is a recognition, expressly or implicitly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. See *In re Sernaker*, 17 USPQ 1, 5-6 (Fed. Cir. 1983) and MPEP 2144. In this case, the advantage would be protection of hair and skin from UV radiation as suggested by either Dupuis et al. or Eteve et al.

Further, in response to the Applicant's argument that "a person of ordinary skill in the art would not have been motivated to incorporate a pigment, which is according to Dupuis et al. useful in non-rinse products for protecting hair, in a rinse-off product as addressed in the disclosure of Dieing et al." (see p 4/10 of the reply), it is noted that Dieing et al. teach a variety of hair care products, both leave-on and rinse-off, including hair lotions, rinses, emulsions, sprays, shampoos, gels, mousses, etc. See p. 6.

Furthermore, the Applicant argues: "Neither the teaching of Dieing et al. nor the disclosure of Eteve et al. contain anything which suggests or implies that polymers corresponding to component (A) of applicants' preparation are suitable to stabilize a skin protection composition which comprises an inorganic UV filter corresponding to component (B) of applicants' preparation, or that the polymers corresponding to component (A) of applicants' preparation are suitable to increase the sun protection factor which can be achieved by a skin protection composition which comprises an inorganic UV filter corresponding to component (B)." See pp. 5/10 and 6/10 of the reply. In response, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Further, with respect to the examples in the instant specification, the Applicants argue that the claimed combination of components (A) and (B) produces unexpected results such as increased stability and SPF of the preparation. See p. 5/10 of the reply.

In response, it is noted that the compositions tested by the Applicant (see specification @ pp. 26-27, Application Examples 1 and 2) contain 0.5% of a polymer produced in Preparation Example 9 and 5% of zinc oxide. The alleged unexpected results are not commensurate in scope with the claimed invention. Thus, the Applicant's claims recite a concentration range of "from 0.001 to 30% by weight" of the mixture of components (A) and (B), but the Examples in the specification exemplify 5.5% of the mixture.

Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support." In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980). To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. *In re Hill*, 284 F.2d 955, 128 USPQ 197 (CCPA 1960). Also see MPEP 716.02(d). Furthermore, the Applicant's claim 1 encompasses a very large genus of the polymers, but the Examples recite only one member of the genus. Thus, the alleged unexpected results are not commensurate in scope with the claimed invention also in respect to the number of species tested. There is no adequate basis for reasonably concluding that the great number and variety of the polymers included in the claims would behave in the same manner as the tested compositions. The nonobviousness of a broader claimed range can be supported by



evidence based on unexpected results from testing a narrower range if one of ordinary skill in the art would be able to determine a trend in the exemplified data which would allow the artisan to reasonably extend the probative value thereof. *In re Kollman*, 595 F.2d 48, 201 USPQ 193 (CCPA 1979). See MPEP above.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

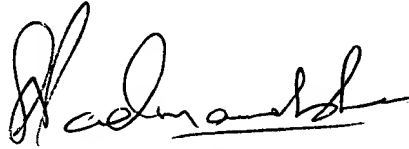
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Lamm whose telephone number is (571) 272-0618. The examiner can normally be reached on Mon-Fri from 11am to 7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, can be reached at (571) 272-0629.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Lamm, M.S., J.D.  
Patent Examiner  
1/22/08



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